AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	Page 1 of Pages 55

2. AMENDMENT/~~MODIFICATION~~ NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
002	**September 16, 1999**	99-302100014	

6. ISSUED BY	CODE	LC-3117	7. ADMINISTERED BY *(If other than Item 6)*	CODE
Bureau of Reclamation **Lower Colorado Region** **P.O. Box 61470** **Boulder City NV 89006-1470**	**http://www.lc.usbr.gov/~g3100/**			

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State, and ZIP code)*	(T)	9A. AMENDMENT OF SOLICITATION NO.
	T	**99-SI-30-0011**
		9B. DATED (SEE ITEM 11)
		August 20, 1999
		10A. MODIFICATION OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE / FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[**X**] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers [**X**] is extended, [ ] is not extended.

Offerors must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning 1 copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (if required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(**T**)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT/ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. **IMPORTANT**: Contractor [ ] is not [ ] is required to sign and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/~~MODIFICATION~~ (Organized by UCF section headings, including solicitation/contract subject matter where feasible)

Project Title: Two Mile Wash Restoration, Kaibab-Paiute Indian Reservation, Kaibab, Arizona

Purpose of Amendment: The purpose of this amendment is to (1) revise the specifications; (2) extend the bid opening date; and (3) provide the revised pages that were affected by Amendment No. 001.

Receipt of Bids: The date for receipt of bids is hereby extended from September 28, 1999 to October 5, 1999. The time and place for receipt of bids remain 2:00 p.m., local time, at the Bureau of Reclamation, Lower Colorado Regional Office, Nevada Highway and Park Street, Annex Building, Room AA-123, Boulder City, Nevada.

Acknowledgment: See block 11 above regarding how to acknowledge this amendment. The acknowledgment must be received at the place designated for receipt of bids (see block 8 of the "Solicitation, Offer, and Award," Standard Form 1442).

Bid Modification: See block 11 above if you have submitted your bid and now desire to modify it or withdraw it.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY_____ (Signature of Contracting Officer)	16C. DATE SIGNED

Description of the Changes:

1. This amendment includes revised pages that were affected by the change to the site visit date in Amendment No. 001.

2. Various revisions were made to the specifications. See the following table for affected pages.

Instructions:

Remove	***Replace with Revised***
Foreword, pages 1 and 2	Foreword, pages 1 and 2
Table of Contents, pages i thru iv	Table of Contents, pages i thru iv
Page B-1	Pages B-1 and B-2
Pages C-1 thru C-6	Pages C-1 thru C-6a
Pages C-9 thru C-12	Pages C-9 thru C-12
Pages C-15 and C-16	Pages C-15 and C-16
Pages C-19 thru C-24	Pages C-19 thru C-24a
Pages C-27 thru C-39	C-27 thru C-38
N/A	Appendix A (pages AA-1 and AA-2)
Drawings 1 thru 10 (10 pages)	Drawings 1 thru 11 (10 pages)
Pages L-5 and L-6	Pages L-5 and L-6

TWO MILE WASH RESTORATION
KAIBAB-PAIUTE INDIAN RESERVATION
KAIBAB, ARIZONA

FOREWORD

The work to be performed under this solicitation is for the purpose of environmental restoration of an existing riparian area. The work includes installation of an infiltration gallery and diversion pipeline and excavation of existing impoundment.

The principle features of the work include:

a. Excavation for slope stabilization and access.

b. Excavation for infiltration gallery and pre-cast diversion box.

c. Formwork, reinforcement, and concrete placement of cutoff barriers for infiltration gallery.

d. Installation of pre-cast diversion box.

e. Installation of gravel and riprap.

f. Excavation, trenching, and installation of diversion pipe.

g. Excavation to refurbish existing impoundment.

h. Spreading and leveling spoils materials.

i. Revegetating disturbed areas with native grasses.

FOR DATE AND PLACE OF BID OPENING, SEE "SOLICITATION, OFFER, AND AWARD," STANDARD FORM 1442, IMMEDIATELY FOLLOWING THE "CONTENTS."

FOR INFORMATION REGARDING BUREAU OF RECLAMATION'S PUBLICATION ENTITLED "RECLAMATION SAFETY AND HEALTH STANDARDS," WHICH IS APPLICABLE TO WORK UNDER THIS CONTRACT, SEE THE CLAUSE ENTITLED "WBR 1452.223-81 SAFETY AND HEALTH".

% **A SITE VISIT IS SCHEDULED FOR 10:00 A.M. MST ON SEPTEMBER 17, 1999. PARTICIPANTS WILL MEET IN THE CONFERENCE ROOM AT THE TRIBAL OFFICE (SEE NEXT PAGE FOR DIRECTIONS). PROSPECTIVE BIDDERS DESIRING TO VISIT THE SITE OF THE WORK SHOULD COMMUNICATE WITH MR. HARVEY EDWARDS, TELEPHONE: (702) 293-8151.**

Directions to Tribal Office

From St George, Utah (approx. 52 miles):

1. Take I-15 North to Utah SR 9 (east, Hurricane exit);
2. Follow signs to UT SR 59;
3. Follow UT SR 59 to AZ SR 389;
4. Continue on AZ SR 389 (east) to Pipe Spring National Monument turnoff (at Mobil gas station);
5. Tribal Office is the first building on the right.

From Fredonia, Arizona (approx. 14 miles):

1. Take Arizona SR 389 (west) to Pipe Spring National Monument turnoff (at Mobil gas station);
2. Tribal Office is the first building on the right.

The nearest airport is in St. George, Utah.
The telephone number for the tribal office is (520) 643-7245.

Table of Contents

SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS

B.1 WBR 1452.214-908 THE REQUIREMENTS--BUREAU OF RECLAMATION--LOWER COLORADO REGION (NOV 1996)

(a) The Contractor shall furnish the items identified in this Section, in accordance with the terms, conditions, and specifications contained in the contract.

(b) Bidders are cautioned to carefully review the bid submission requirements contained in Section L. Failure to comply with these requirements may result in a bid being declared nonresponsive.

(c) Bids will be considered for award on the schedule in Paragraph B.2, but no bid will be considered for award for only a part of the schedule. Bids for only a part of the schedule will be considered nonresponsive and will be rejected.

(d) Bidders shall complete the bidding schedule in Section B and furnish any additional information required in Section B, as applicable.

(f) No drawings or descriptive literature are required to be submitted with the bid.

(g) The quantities stated in the Schedule, other than those identified as "lump sum," are estimated quantities for comparison of bids, and except as provided in the clause “Variation in Estimated Quantity,” no claim shall be made against the Government for variations in the quantities stated.

B.2 BIDDING SCHEDULE

SCHEDULE

	Item	Work or Material	Quantity and Unit	Unit Price	Amount
%	1.	Slope stabilization and access, installation of diversion structures, installation of diversion pipeline	Lump sum of	**N/A**	$_____
%	2.	Restoration of existing wash impoundment	Lump sum of	**N/A**	$_____
%	3.	Furnishing and placing riprap	~~200~~ **250** cu yds	$_____	$_____
% %	**4.**	**Furnishing and installing sheet piling**	**Lump sum of**	**N/A**	**$**_____
				Total for Schedule	$_____

STATEMENT OF WORK

TWO MILE WASH RESTORATION
KAIBAB, ARIZONA

DIVISION 1 -- GENERAL REQUIREMENTS

SECTION 1.1 -- GENERAL

1.1.1. The Requirement

It is required that there be constructed and completed, in accordance with the contract clauses, these specifications, and drawings, hereof, restoration of Two Mile Wash.

The work is located on the Kaibab Paiute Indian Reservation, Arizona, approximately 15 miles west of Fredonia, Arizona.

1.1.2. Description of the Work

The principle features of the work include:

a. Excavation for slope stabilization and access.

b. Excavation for infiltration gallery and pre-cast diversion box.

c. Formwork, reinforcement, and concrete placement of cutoff barriers for infiltration gallery.

d. Installation of pre-cast diversion box.

e. Installation of gravel and riprap.

f. Excavation, trenching, and installation of diversion pipe.

g. Excavation to refurbish existing impoundment.

h. Spreading and leveling spoils materials.

i. Revegetating disturbed areas with native grasses.

1.1.3. Staking Out Work

% **a. General. - The Government has established primary control to be used for**
% **establishing lines and grades required for the work. The primary control consists of**
% **bench marks and horizontal control points established at the site of the work.**
%

% **The Contractor shall be responsible for maintaining and preserving all control points**
% **established by the Government. If control points are destroyed by the Contractor, the**
% **cost of replacement will be the responsibility of the Contractor.**
%
% **All survey work performed by the Contractor shall be subject to field and office review by**
% **the Contracting Officer.**
%
% **b. Layout of work. - From the local reference points, the Contractor shall lay out the**
% **work by establishing all lines and grades at the site necessary to control the work and**
% **shall be responsible for all measurements that may be required for execution of the work.**
%
% **The Contractor shall perform all layout surveys and all intermediate surveys required for**
% **the control and completion of the work.**
%
% **Prior to beginning any phase of the survey work, the Contractor shall submit to the**
% **Contracting Officer its proposed plan for establishing lines and grades for control of the**
% **work.**
%
% **c. Records. - All survey data shall be recorded in accordance with standard methods**
% **approved by the Contracting Officer. All original field notes, computations and other**
% **records for the purpose of layout shall be recorded in field books. The Government will**
% **furnish the field books to be utilized by the Contractor. The Contractor, immediately**
% **upon completing and reducing the notes for a survey or portion of a survey, shall furnish**
% **a copy to the Government. Upon completing a field survey book, the original field survey**
% **book shall be submitted to the Government for its use and filing.**
%
% **d. Equipment and materials. - The Contractor shall furnish all equipment and**
% **materials, including instruments, stakes, steel pins, platforms, tools and other**
% **accessories as may be required in laying out any part of the work from the primary**
% **control points. Instruments shall be accurate and shall be subject to rigid inspection,**
% **and any defective instrument, as determined by the Contracting Officer, shall be**
% **promptly replaced, repaired or adjusted as directed.**
%
% **e. Cost. - The cost of all materials furnished by the Contractor and all work performed**
% **by the Contractor for layout of work and related work as herein required shall be**
% **included in the prices bid in the schedule for the items of work for which the surveys are**
% **required.**

1.1.4. Submittal Requirements

a. General.--The Contractor shall furnish all materials and perform all work required for furnishing submittals to the Government, in the accordance with clause FAR 52.236-21 Specifications and Drawings for Construction; this paragraph; Table 1A (List of Submittals); and the requirements in the provisions, clauses, and paragraphs of this solicitation/specifications.

The word "submittals" shall be interpreted to include drawings, data, manuals, certifications, samples, color chips or charts, brochures, and other items furnished by the Contractor for approval, informational, and other purposes.

b. List of Submittals.--Table 1A (List of Submittals), lists the submittals required by this solicitation/specifications except those submittals which are required conditionally, required by entities other than the Bureau of Reclamation, or which are periodic in nature. Any submittal required to be submitted by the Contractor but which is not listed in the table shall be submitted in accordance with the applicable requirements of this solicitation/specifications. In case of a conflict between the requirements of this paragraph and the requirements included elsewhere in this solicitation/specifications, the requirements elsewhere shall take precedence over the requirements contained in this paragraph.

c. Submittals.--Each item in Table 1A (List of Submittals) has been assigned an RSN (Required Submittal Number). The "Submittals required" column of the table specifies the material to be submitted for each RSN. All of the material specified for an RSN will be considered a complete set; and where the material required for an RSN is specified as separate or distinguishable parts, a complete set shall include all parts. Only complete sets shall be submitted.

The number of complete sets to be submitted, and the location to which they are to be sent, shall be in accordance with the "No. of sets to be sent to:" column of the table, except as provided below for sets of original material.

When an RSN involves submittal of original (non-copied) material, all original material, or as much thereof as necessary to form a complete set, shall be included in just one complete set. This "originals" set shall be sent to the proper address, given in subparagraph e. below, as determined by the "Responsible code" column of the table and the following:

(1) CO indicates Contracting Officer

% (2) ~~PCE indicates Project Construction Engineer~~ **RE indicates Regional Engineer**.

The "originals" set shall be counted as one of the complete sets required to be submitted under the "no. of sets to be sent to:" column of the table.

For each RSN, the Contractor shall submit complete sets of required submittal material under the cover of a transmittal letter. At the Contractor's option, complete sets for more than one RSN may be submitted under cover of the same transmittal letter, provided they have the same responsible code designation as shown in the table. The Contractor's transmittal letter shall include:

(1) Reference to Bureau of Reclamation contract/specifications numbers and title.

(2) Identification of responsible code as shown in the table.

(3) Complete list of RSN(s) for which material is being submitted.

(4) For each RSN, number of complete sets and list of materials included.

(5) For each RSN, identification of the submittal as an initial submittal or a resubmittal.

Each drawing submitted by the Contractor shall have the Contractor's or supplier's title and drawing number on it. Drawings and data shall be labeled with the Bureau of Reclamation solicitation/specifications numbers and the schedule item number.

Manufacturer's data for commercial products or equipment, such as catalog cut sheets, shall be clearly marked to indicate the item(s) to be furnished. The data shall be sufficiently comprehensive to identify the manufacturer's name, type, model, size, and characteristics of the product or equipment, as well as the fully demonstrate that the product or equipment meets the requirements of these specifications.

Submittals requiring certification by a registered professional shall be signed and sealed.

d. Review of submittals furnished for approval.--The time required for review of each submittal furnished under an RSN for approval will not begin until the Government receives complete sets of all the submittal materials required for that particular RSN. The number of calendar days required for review of drawings or data submitted or resubmitted for approval will include the date the drawings or data are received by the Government, and will extend through the date of return mailing to the Contractor.

Except as otherwise provided in the specifications for specific submittals, the Government will
% require ~~30~~ **15** calendar days for review of each submittal or resubmittal furnished by the Contractor for approval, and this review time will apply to each separate submittal or resubmittal whether the submittals are approved, not approved, or returned for revision.

If the Government uses time in excess of the specified number of calendar days for review of any submittal or resubmittal, additional time, not to exceed the excess time, will be added to the time allowed the Contractor for completion of the work affected by such excess time, to the extent it is demonstrated that the excess time caused delay. If the Government's review of two or more separate submittals or resubmittals is late and results in concurrent days of excess time, such days will be counted only once in computing an extension of the completion date. Further, if the Contractor fails to make complete approval submittals in the sequence and within the time periods specified in this solicitation/specifications, and thus precludes the Government from approving or considering for approval such submittals within the specified calendar day period, then the Contractor shall not be entitled to an extension of time allowed for completion of the work.

Unless otherwise specified, one set of the submittals required for approval will be returned to the Contractor either approved, not approved, or conditionally approved, and will be marked to indicate changes, if required. Submittals that are not approved or that require changes or revisions shall be revised and resubmitted for approval, and shall show changes and revisions

with revision date. All requirements specified for the initial submittal shall apply to any resubmittals required. Unless otherwise specified, all submittals which are to be resubmitted
% shall be resubmitted by the Contractor within ~~40~~ **15** calendar days after the Contractor has received the Government's comments.

e. Addresses.--The Contractor shall submit the submittals to the applicable addresses listed below as required by Table 1A (List of Submittals).

The Contractor shall also send a copy of the transmittal letter to each of the addresses listed below that are not sent the submittal. Submittals shall be submitted as required by Table 1A (List of Submittals) to:

1. Bureau of Reclamation
   Contracting Officer, LC-3110
   P.O. Box 61470
   Boulder City NV 89006-1470

2. Bureau of Reclamation
% ~~Project Construction Engineer, Attn: LC-6210~~
% **Regional Engineer, Attn: LC-6000**
   P.O. Box 61470
   Boulder City, NV 89006-1470

f. Cost.--Unless otherwise specified, no separate payment will be made for preparing and furnishing submittals to the Government, and the cost thereof shall be included in the prices bid in the schedule for the applicable items of work requiring the submittals or other items of work.

SUBMITTALS

TWO MILE WASH RESTORATION
KAIBAB, ARIZONA

Table 1A - List of Submittals

RSN	Item	Reference Provision, Clause or Paragraph	Respon-sible Code	Submittals Required	No. of sets to be sent to:*		Due Date or Delivery Time
					CO	**RE**	
001	~~Materials Specifications~~ **Riprap**	2.1.3.a	~~PCE~~ **RE**	~~Riprap standards~~ **Certification that material meets requirements**	0	~~1~~ **3**	**Prior to purchase**.
002	~~Materials Specifications~~ **Geotextile**	2.1.3.b	~~PCE~~ **RE**	Geotextile description, sample **and certification**	0	~~1~~ **3**	**Prior to procurement**.
003	~~Material Specifications~~ **Gallery liner**	2.2.3.b	~~PCE~~ **RE**	Description **and certification** of gallery liner	0	~~1~~ **3**	**Prior to procurement**.
004	~~Material Specifications~~ **Geotextile**	2.2.3.c	~~PCE~~ **RE**	Geotextile description, sample **and certification**	0	~~1~~ **3**	**Prior to procurement**.
005	~~Material Specifications~~ **Gravel**	2.2.3.d	~~PCE~~ **RE**	~~Description and specifications of gravel~~ **Certification that material meets requirements**	0	~~1~~ **3**	**Prior to purchase**.
006	~~Material Specifications~~ **Pipe**	2.3.2.c	~~PCE~~ **RE**	~~Pipe specifications~~ **Product data sheets**	0	~~1~~ **3**	**Prior to procurement**.
007	Liability Insurance	DOI 1452.228-70	CO	Acceptable evidence showing that insurance has been obtained.	1	0	Prior to commencement of work under this contract.
008	Insurance - work on a Government installation	52.228-5	CO	Written certification that the required insurance has been obtained.	1	0	Prior to commencement of work under this contract.
009	Safety and Health	WBR 1452.223-81	~~CE~~ **RE**	Safety Program.	0	~~2~~ **3**	Submitted and accepted before commencing onsite work.
010	Performance and Payment Bonds	52.228-15	CO	Bonds	1	0	Within 15 days after award.
011	Release of Claims	DOI 1452.204-70	CO	Release of Claims (DI-137) against the United States	1	1	After completion of the work and prior to final payment.

RSN	Item	Reference Provision, Clause or Paragraph	Respon-sible Code	Submittals Required	No. of sets to be sent to:*		Due Date or Delivery Time
					CO	**RE**	
012	**Infiltration gallery and manifold**	**2.2.2.**	**RE**	**a) Details of perforated piping b) Connection of 10- to 24-inch pipe**	**0**	**4**	**Prior to procurement/ fabrication.**
013	**Diversion box**	**4.2.1.**	**RE**	**Design incorporating pipe, covers, valve installation and weir wall**	**0**	**4**	**Prior to fabrication.**
014	**Concrete materials**	**4.1.2.**	**RE**	**Name and manufacturer of each item to be used in concrete mix**	**0**	**3**	**Not less than 15 days prior to concrete placement.**
015	**Concrete**	**4.1.3.**	**RE**	**Mix design**	**0**	**3**	**Not less than 15 days prior to concrete placement.**
016	**Rebar**	**4.1.5.**	**RE**	**Certification**	**0**	**3**	**Not less than 15 days prior to concrete placement.**
017	**Sheet piling cutoff barrier**	**5.1.1.**	**RE**	**a) Material certification b) Method of driving**	**0**	**3**	**Prior to start of installation.**
018	**Canal gate valves**		**RE**	**Commercial products data**	**0**	**5**	**Before fabrication or procurement.**
019	**Surveys**	**1.1.3**	**RE**	**a) Cross sections of original ground elevations b) As-built cross sections**	**0**	**3**	**a) Prior to start of construction. b) Upon completion of construction.**

% * CO indicates Contracting Officer and ~~PCE~~ **RE** indicates ~~Project Construction~~ **Regional** Engineer. For mailing addresses, see subparagraph entitled "Addresses" of paragraph entitled "Submittal Requirements."

Liberal factors of safety and adequate shock-absorbing features shall be used throughout designs, especially for parts subjected to variable stress or shock, including alternating or vibrating stress or shock. Shock-absorbing features and parts subject to vibration shall include provisions which prevent components from loosening.

1.2.3. Reference Specifications and Standards

Materials, Contractor design, construction work, and other requirements which are specified by reference to Federal Specifications, Federal Standards, or other standard specifications or codes shall comply with the editions or revisions listed. In the event of conflicting requirements between referenced specifications, standards, or codes and these specifications, these specifications shall govern.

In the event that materials are not covered by Federal or other specifications, the materials furnished shall be of standard commercial quality.

Copies of Federal Specifications and standards may be obtained from GSA Federal Supply Service Bureau. See the provision at FAR 52.211-1, "Availability of Specifications Listed in the GSA Index of Federal Specifications, Standards and Commercial Item Descriptions, FPMR Part 101-29." Many of the Federal Specifications and Standards may be examined at the Bureau of Reclamation Denver Office Library, Building 67, Denver Federal Center, West 6th Avenue and Kipling Street, Denver, Colorado.

Addresses for obtaining some industrial and governmental (other than Federal and Bureau of Reclamation specifications and standards) specifications, standards, and codes are listed in the provision at FAR 52.211-3 "Availability of Specifications Not Listed in the GSA Index of Federal Specifications, Standards and Commercial Item Descriptions."

The Contractor shall maintain onsite, a copy of referenced specifications and standards related to work proceeding at the jobsite while the work is being performed. These shall be available for use by the Government.

SECTION 1.3--LOCAL CONDITIONS

1.3.1. Access to the Work

a. General.--Rights-of-way for access to the work from existing roads will be provided by Reclamation. All work on the rights-of-way necessary for access to the site shall be performed by the Contractor.

The Contractor shall make its own investigation of the condition of available public or private roads and of clearances, restrictions, bridge-load limits, bond requirements, and other limitations that affect or may affect transportation and ingress and egress at the jobsites. Subject to the clause at FAR 52.249-10 Default (Fixed-Price Construction), the unavailability of transportation facilities or limitations thereon shall not become a basis for claims for damages

or extension of time for completion of work. It shall be the Contractor's responsibility to construct and maintain, at its own expense and at its own risk, any haul roads, access roads, bridges, or drainage structures required for construction operations.

b. Existing roads.--The Contractor shall meet all conditions imposed upon the use of existing roads by the controlling agency; including seasonal, weight, or other limitations or restrictions; payment of excess size and weight fees; and posting of bonds.

c. Haul routes.--The hauling of sand, gravel, earth materials, or other intrajob hauling, over public highways, roads, or bridges shall be in compliance with the applicable local regulations and shall be such as to minimize interference with or congestion of local traffic. Where haul routes cross public highways or roads, the Contractor shall provide barricades, flagmen, and other necessary precautions for safety of the public as provided in Paragraph 1.4.1. (Safety of the Public).

d. Cost.--The cost of all work described in this paragraph shall be included in the prices bid in the schedule for other items of work.

1.3.2. Use of Land for Construction Purposes

a. General.--The Contractor will be permitted to use Tribal land, controlled by the Kaibab Paiute Indian Tribe, for field offices, construction plants and buildings, storage yards, shops, roads, spoil areas, and other construction facilities required for construction purposes. Before any excavation or construction is performed at the site, the Contractor must obtain clearance from the Tribal representative.

If private land is used by the Contractor for construction facilities or other purposes, the Contractor shall make all necessary arrangements with the owner and shall pay all rentals or other costs connected therewith.

b. Tribal land.--The Contractor's use of Tribal land for construction purposes shall be subject to the requirements of the FAR clauses 52.236-9 Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements, 52.236-10 Operations and Storage Areas, 52.236-12 Cleaning Up, and other applicable contract clauses, SECTION 1.5 - Environmental Quality Protection of these specifications, and to the requirements of this paragraph. Such use shall not interfere with any part of the work under this contract, nor with the work of other contractors or the Tribe in the vicinity, nor with reservations made, or as may be made, by the Tribe for the use of such land.

% **A cultural site is located near the work area. Prior to onsite construction, the Tribe shall**
% **place identifying barricades/barriers designed to identify the limits of the cultural site.**
% **The Contractor shall not encroach upon this site during construction or any other**
% **work-related activities.**

The Contractor's construction facilities shall be arranged and operated in a manner to preserve and protect existing features, trees, and vegetation to the maximum extent practicable. The location, construction, operation, maintenance, and removal of construction facilities on Tribal
% land shall be subject to the approval of the ~~Contracting Officer~~ **Tribe**.

Housing for Contractor personnel will not be permitted on Tribal land.

Upon completion of the work, and following removal of construction facilities and required cleanup, Tribal land used for construction purposes and not required for the completed installation shall be regraded in accordance with Paragraph 1.5.1 (Landscape Preservation).

c. Cost.--No charge will be made to the Contractor for the use of Tribal land for construction purposes. All work required by this paragraph shall be at the expense of the Contractor.

1.3.3. Electric Power for Construction Purposes

The Contractor shall make all necessary arrangements and shall provide all electric power required for construction purposes, including providing any temporary transmission lines, distribution circuits, transformers, and other electrical equipment required for distributing the power to the place or places of use by the Contractor. In lieu of temporary power lines, portable generators of adequate size may be utilized as a temporary power source.

At the termination of the contract under these specifications, the Contractor shall dismantle and remove all distribution lines serving the Contractor's installations, or those of subcontractors, that are not part of the permanent ~~power~~ installation.

No direct payment will be made to the Contractor for providing electric power for construction purposes, and the cost thereof shall be included in the prices bid in the schedule for other items of work.

1.3.4. Water for Construction and Dust Abatement

The Contractor shall furnish all water required for construction and dust abatement purposes. The Contractor shall make all arrangements for obtaining water and provide all means for conveying water to points of use. The Contractor shall coordinate with the Tribe to assure the availability of water or shall provide an alternate source.

b. Cost. - The cost of furnishing water and of providing necessary facilities and conveying water to points of use shall be included in the prices bid in the schedule for other items of work.

SECTION 1.4--SAFETY

1.4.1. Safety of the Public

The Contractor shall provide, erect, and maintain all necessary barricades, suitable and sufficient flasher lights, flagmen, danger signals, and signs, and shall take all necessary precautions for the protection of the work and the safety of the public.

% ~~Specific signs, barricades, and flagmen requirements are detailed in sections 9 and 19 of~~ **The**
% **Contractor shall comply with** the Bureau of Reclamation's publication "Reclamation Safety

and Health Standards" and the American National Standards Institute "Manual on Uniform Traffic Control Devices for Streets and Highways" (ANSI D6.1-1994).

The cost of complying with this paragraph shall be included in the prices bid in the schedule for other items of work.

1.4.2. Submission of Material Safety Data Sheets for Hazardous Materials

After award of contract, the Contractor shall submit updated List of Hazardous Materials (LHM) and Material Safety Data Sheets (MSDS) in accordance with the requirements of paragraph (e) of the clause at FAR 52.223-3 Hazardous Material Identification and Material Safety Data.

The Contractor shall submit the updated LHM and completed MSDS and identification and
% certification for each material to the Bureau of Reclamation, ~~Project Construction~~ **Regional**
% Engineer, Attention: **LC-6000**, Bureau of Reclamation, P.O. Box 61470, Boulder City, NV 89006-1470. Copies of the LHM and completed MSDS shall be submitted to the Regional Safety Engineer, Bureau of Reclamation, P.O. Box 61470, Boulder City, NV 89006-1470. The Contractor shall not deliver any hazardous material to the jobsite which was not included on the original LHM prior to acceptance of the Contractor's MSDS by the Regional Safety Engineer.

SECTION 1.5--ENVIRONMENTAL QUALITY PROTECTION

1.5.1. Landscape Preservation

The Contractor's construction facilities and operations, as well as those of persons or parties operating or associated with the Contractor, on Tribal land shall be subject to the requirements of the FAR clauses 52.236-9 Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements, 52.236-10 Operations and Storage Areas, 52.236-12 Cleaning Up, and other applicable contract clauses, this section, and the requirements of this paragraph.

The Contractor shall exercise care to preserve the natural landscape, and shall conduct operations so as to prevent unnecessary destruction, scarring, or defacing of the natural surroundings in the vicinity of the work. Movement of crews and equipment within the rights-of-way and over routes provided for access to the work shall be performed in a manner to prevent damage to property. When no longer required, construction roads shall be restored to original contours and made impassable to vehicular traffic.

Upon completion of the work, and following removal of construction facilities and required cleanup, Tribal land used for construction purposes and not required for the completed installation shall be regraded, as required, so that all surfaces blend with the natural terrain and are left in a condition that will facilitate natural revegetation, provide for proper drainage, and prevent erosion.

In accordance with the clause at FAR 52.236-10 Operations and Storage Areas, all work required by this paragraph shall be at the expense of the Contractor.

b. Laws, regulations, and permits.--The Contractor shall comply with applicable Federal and State laws, orders, regulations, and water quality standards concerning the control and abatement of water pollution and in the event there is a conflict between State and Federal laws, regulations, and requirements, the most stringent shall apply. Consistent violations of applicable Federal or State laws, orders, regulations, or water-quality standards shall result in the Contracting Officer stopping all site activity until compliance is assured. The Contractor shall not be entitled to any extension of time, claim for damage, or additional compensation by reason of such a work stoppage. Corrective measures required to bring activities into compliance shall be at the Contractor's expense.

% **The Contractor must comply with the Clean Water Act 401 certification (see Appendix A).**

c. Cost.--Except as specified above, the cost of complying with this paragraph shall be included in the prices bid in the schedule for other items of work.

1.5.6. Abatement of Air Pollution

a. General.--The Contractor shall comply with applicable Federal, State, and local laws and regulations, and with the requirements of this paragraph concerning the prevention and control of air pollution. Should a conflict exist in the requirements for abatement of air pollution, the most stringent requirement shall apply. The Contractor shall utilize such methods and devices as are reasonably available to prevent, control, and otherwise minimize atmospheric emissions or discharges of air contaminants.

Equipment and vehicles that show excessive emissions of exhaust gases shall not be operated until corrective repairs or adjustments reduce such emissions to acceptable levels.

Abatement of dust pollution shall be in accordance with the applicable requirements of Reclamation's publication entitled "Reclamation’s Safety and Health Standards" and Paragraph 1.5.7. (Dust Abatement).

b. Cost.--The cost of complying with this paragraph shall be included in the prices bid in the schedule for other items of work.

1.5.7. Dust Abatement

a. General.--During the performance of work required by these specifications, or any operations appurtenant thereto, and whether on rights-of-way provided by the Tribe or elsewhere, the Contractor shall comply with applicable Federal, State, and local laws and regulations, with applicable requirements of Reclamation's publication entitled "Reclamation’s Safety and Health Standards" and with the requirements of this paragraph regarding the prevention, control, and abatement of dust pollution. Should a conflict exist in the requirements for dust abatement, the most stringent requirement shall apply. The Contractor shall be responsible for all damages resulting from dust originating from Contractor operations under these specifications in accordance with the FAR clause at 52.236-7 Permits and Responsibilities.

The Contractor shall provide labor, equipment, and materials and when required to prevent dust nuisance or damage to persons, property, or activities, including, but not limited to, crops, orchards, cultivated fields, wildlife habitats, dwellings and residences, agricultural activities, recreational activities, traffic, and similar conditions.

The Contracting Officer has the authority to stop any construction activity contributing to dust levels which are excessive or in violation of Federal, State, or local laws. All expenses resulting from such a work stoppage shall be the responsibility of the Contractor.

b. Cost.--The cost of complying with this paragraph shall be included in the prices bid in the schedule for other items of work.

1.5.8. Preservation of Historical and Archeological Data

a. General.--Federal legislation provides for the protection, preservation, and collection of scientific, prehistorical, historical, and archeological data (including relics and specimens) which might otherwise be lost due to alteration of the terrain as a result of any Federal construction project.

Should the Contractor, or any of the Contractor's employees, or parties operating or associated with the Contractor, in the performance of this contract discover evidence of possible scientific, prehistorical, historical, or archeological data, the Contractor shall immediately cease work at that location and notify the Contracting Officer, giving the location and nature of the findings. The Contractor shall forward written confirmation to the Contracting Officer within 2 days. The Contractor shall exercise care so as not to disturb or damage artifacts or fossils uncovered during excavation operations, and shall provide such cooperation and assistance as may be necessary to preserve the findings for removal or other disposition by the Government.

Any person who, without permission, injures, destroys, excavates, appropriates or removes any historical or prehistorical artifact, object of antiquity, or archeological resource on the public lands of the United States is subject to arrest and penalty of law.

Where appropriate by reason of discovery, the Contracting Officer may order delays in the time of performance, or changes in the work, or both. If such delays, or changes, or both, are ordered, the time of performance and contract price shall be adjusted in accordance with the applicable clauses of this contract.

The Contractor agrees to insert this paragraph in all subcontracts which involve the performance of work on the terrain of the site.

b. Except as provided above, the cost of complying with this paragraph shall be included in the prices bid in the schedule for other items of work.

DIVISION 2 -- SITEWORK

SECTION 2.1--STREAM STABILIZATION

2.1.1. General

a. This Section covers stabilization of Moccasin Wash.

2.1.2. Stabilization

a. The bank areas of Moccasin Wash in the vicinity of the proposed diversion gallery and the downstream waterfall are to be excavated in accordance with Reclamation's publication entitled "Reclamation's Safety and Health Standards" and to allow access to the project area.

(1) Riprap shall be placed in the channel for stabilization and erosion control as directed by the Contracting Officer or Contracting Officer's Representative. The placed riprap shall be shaped to encourage flow in the middle of the channel.

2.1.3. Materials

a. Riprap shall be 12-inch to 24-inch diameter. The material proposed shall meet the following standards:

Parameter	Reclamation Specification
Abrasion	<40%
Specific Gravity	>2.62
Absorption	<1.5%

b. Geotextile material shall underlay all placed riprap for erosion control and be anchored or pinned as required. The material shall have a puncture rating of 135 pounds or greater and ultra-violet stability of 90% or greater. The equivalent of LINQ GTF-400E or better is acceptable.

2.1.4. Measurement and Payment

Measurement, for payment, for furnishing and placing riprap will be made by cubic yard of material which is placed.

Payment for furnishing and placing riprap will be made at the unit price per yard bid therefor in the schedule. This unit price will include all materials, labor, equipment, and incidentals required to complete the work as specified in this paragraph.

Payment for terracing, widening, and sloping Moccasin Wash for safety and access will be included in the lump sum price bid therefor in the schedule for "Slope stabilization and access, installation of diversion structures, installation of diversion pipeline." This lump sum price will include all materials, labor, equipment, and incidentals required to complete the work as specified in this paragraph.

SECTION 2.2--STREAM DIVERSION

2.2.1. General

a. This Section covers diversion of flow from Moccasin Wash.

2.2.2. Diversion

a. The diversion of flow from Moccasin Wash consists of excavation for and installation of a diversion box, Moccasin return flow pipe, diversion pipe connection, flow infiltration gallery, % ~~manifold~~ **diversion** pipe control valves, and revegetation of disturbed areas.

Low flows (up to approximately 5-10 cfs) from Moccasin Wash are to be diverted into Two Mile Wash. Elevation difference between the proposed pipe inlet and outlet structures is approximately 30-feet over a run of approximately 1900-feet. Flows range from 1 cfs to 2000 cfs. For flows less than 10 cfs, approximately 20% of the flow is to be maintained in Moccasin Wash. Flows greater than 10 cfs are to remain in Moccasin Wash. The diversion structure will be gated to allow the diversion to be closed prior to anticipated storm events.

b. The typical infiltration gallery and manifold detail is shown on Drawing No. X-300-2125. The proposed gallery and upstream and downstream cutoff barriers will span the low flow channel width (approximately 40 feet).

% **(1)** The upstream cutoff barrier shall be **constructed of concrete and shall be the** % **same width as the sheet piling barrier. The barrier shall be** 5.0 **feet** deep x 8.0 **inches** thick and placed below the upstream side of the gallery as shown. The upstream cutoff barrier is to be keyed into the stream embankments no less than 2.0 feet.

% **(2)** The downstream cutoff barrier shall be **constructed of sheet piling in accordance** % **with Section 5.1. The barrier shall extend to a depth of 17.0 feet or refusal below original** % **ground surface.** ~~24.0-foot x 8.0-inch and placed at a 45 degree slope. To allow for subsurface flow, the barrier shall be underlain with geotextile material. Weep holes shall be placed in the downstream cutoff barrier as directed by the Contracting Officer or Representative. The downstream cutoff barrier is to be shaped to encourage flow in the middle of the channel. The downstream cutoff barrier is to be keyed into the stream embankments no less than 4.0-feet.~~

% **(3)** The gallery shall be lined with 30 mil PVC or **EPDM** material. The liner shall be % overlain with 1.8-foot bed of clean gravel overlain by a permeable geotextile and 2 **feet of** % **12- to 24-inch** riprap. The riprap shall be placed and shaped in a manner that **protects the** % **side slopes and** encourages flows **into** the center of the channel. Gallery piping as shown % consists of seven (7) **10-inch-**diameter slotted drain pipes at **40-foot** lengths with 1% slope % entering a common **24-inch** manifold pipe with 0.4% slope. ~~The gallery piping shall be~~

~~secured from floating by rot and corrosion resistant straps or cables that are anchored into the upstream and downstream cutoff barriers at 10-foot spacing.~~

c. The diversion box will allow for inflow from the manifold and outflow into the diversion and Moccasin return flow pipelines. Internally, the box shall be set up to allow for approximately 20% of the flows to remain in Moccasin Wash at low flows (<10 cfs). The
% Moccasin return flow pipeline as shown in the detail is **10-inch** diameter with a 0.9% slope. The diversion pipeline is detailed in Section 2.3. The outflows shall have control features that allow for flows to be adjusted or turned off by responsible tribal personnel.

The diversion box shall be placed and covered in a manner that will allow valves to be safely operated during high flows and inhibit entry by livestock, debris, or sand. The restored bank line shall be compacted and riprapped to assist with stabilization.

2.2.3. Materials

a. Riprap requirements as specified in Paragraph 2.1.3 apply.

% b. The gallery liner shall be 30 mil or better PVC or **EPDM** material.

c. The geotextile fabric used within the gallery shall have a sieve size of approximately #80-#100 and flow rating of 85 gpm/ft^2. The fabric shall inhibit fine soils from entering the gallery while allowing the passage of water. LINQ GTF-160EX or its equivalent is acceptable.

~~d. The geotextile fabric used to underlay the downstream barrier shall have a sieve size of #70 or finer and a flow rating of 50 gpm/ft^2 or greater. LINQ GTF-125EX or its equivalent is acceptable.~~

% **d.** The gravel shall be washed and screened and composed of not less than 95 percent hard, dense, nonangular, stable particles. Soluble soft materials like limestone or gypsum, soft materials, or sand will not be acceptable.

% **e.** The diversion box shall be prefabricated concrete **in accordance with Section 4.2.1.**
% with a **wooden** cover that is removable for maintenance access. **The wooden cover shall be**
% **constructed of 3x8-inch material, minimum, and shall be physically attached to the box.**
% Internally the diversion box shall be configured **by use of a weir wall** to provide 80% of captured flow into the diversion pipeline and 20% returned to Moccasin Wash. The box shall include and be set up with all stubbing, fittings and connections. Inflow should be stubbed for
% **24-inch** piping. Diversion pipeline stubbing shall be **18-inch** diameter. Moccasin return flow
% stubbing shall be **10-inch** diameter. The tops of the inlet and outlet stubs shall be at equal height from the bottom of the box. The Contractor may propose alternate pipe diameter for the diversion and Moccasin return pipelines. The proposal shall include computations that demonstrate the ability of the pipe to meet the required carrying capacities.

% **f. Submittals. - The Contractor shall submit product data sheets for the perforated**
% **pipe, 10- and 24-inch-diameter PVC pipe and canal gates. The Contractor shall also**
% **submit information detailing the connection between the 10- and 24-inch-diameter pipe.**

% **g. Materials. -**
%
% **(1) Pipe. - ASTM D1784, Schedule 40**
%
% **(2) Gasketed joint. - ASTM D3139**
%
% **(3) Gaskets. - ASTM F477**

% **h.** The Contractor shall provide the required control structures and associated operators. The operator handles shall extend approximately 3 feet above the final grade over the box.

% **i.** The Contractor shall supply all piping for the infiltration gallery, manifold, and Moccasin return flow.

2.2.4. Measurement and Payment

Payment for excavation, furnishing and installing of the infiltration gallery, manifold pipe, diversion box, Moccasin return flow pipe, and diversion pipe connection will be made at the lump sum price bid therefor in the schedule. This lump sum price will include all materials, labor, equipment, and incidentals required to complete the work as specified in this paragraph.

SECTION 2.3--DIVERSION PIPELINE

2.3.1. General

a. This Section covers the diversion pipeline from Moccasin Wash to Two Mile Wash.

2.3.2. Diversion Pipeline

% a. **General. -** The **Contractor shall furnish and install an 18-inch-diameter PVC** diversion
% pipeline from Moccasin Wash to Two Mile Wash **consisting** of ~~installation of~~ the pipeline, clean-outs, thrust block, and riprap apron at the outfall. The alignment profile is shown on
% Drawing No. X-300-2126. The ~~run~~ **pipeline** is approximately 1,900 **feet long** ~~with depth ranging from 4 to 11-feet~~.

~~b~~. The Contractor shall excavate the trench, ~~provide safe access and mechanical support
% for pipeline installation crews; and~~ backfill the trench **and compact backfill in the trench in
% accordance with Division 3, Earthwork, and Drawing No. 11 (40-D-6453)**. ~~Support includes, but is not limited to, delivering pipe to the trench, mechanically lowering pipe, and other support necessary to efficiently install the pipe~~.

% ~~c~~. Pipeline configuration shall be **18-inch** pipe with **a** slope of 0.7% and a capacity of 8 cfs
% with surface clean-outs at approximately 600 **to 700-foot** intervals. The Contractor shall ensure that the proposed pipe meets the required size, general specifications, load bearing, and compaction requirements for the installation.

% **b. Submittals. - The Contractor shall submit product data sheets for the pipe.**
%
% **c. Materials. -**
%
% **(1) Pipe. - ASTM D1784, Schedule 40**
%
% **(2) Gasketed joint. - ASTM D3139**
%
% **(3) Gaskets. - ASTM F477**
%
% **(4) Canal Gate. - The canal gate shall be Type 4, Model C-10 as manufactured by Waterman Industries, Inc., P.O. Box 456, Exeter CA 93221, telephone (559) 562-4000, or equal with the following salient characteristics:**
%
% **(a) The gates shall be self-contained with yoke mounted bench stand operators with rising stem.**
%
% **(b) Frame, Cover (slide), Handwheel - cast iron. - ASTM A-126, Class B. The frame and cover shall be cast iron with machined seating faces. Seating surfaces of both frame and cover shall be assembled so that maximum clearance between seating faces shall be .004 when in fully closed and wedged position. The frame shall be spigotback. The cover shall be a dome design which will withstand maximum seating head of 23 feet. The guide rails and head rails shall be minimum 1/4-inch thick structural steel designed and built to withstand the total thrust of the gate slide due to water pressure and wedge action.**
%
% **There shall be one adjustable cast iron wedge per side, located on the horizontal centerline of the gate. The cover wedge shall be integrally cast with the cover, while the other half of the wedging system shall be attached to the guide rail with two bolts. The wedges shall have smooth bearing surfaces and shall be adjustable to insure effective contact between gate seating surfaces.**
%
% **(c) Stem - leaded cold rolled steel. - ASTM A-108, Type 12L14. The stem shall be 6 feet long and shall be cold finished steel of suitable length and ample strength for the intended service. The stem diameter shall be capable of withstanding twice the rated output of the operator at 40 pound pull, and shall be supported such that the L/r ratio for the unsupported part of the stem shall not exceed 200.**
%
% **When rising stem extension is used, the stem extension shall be supported such that a right installation shall be provided. Stem guides shall be spaced that the L/r ration of the stem does not exceed 200.**
%
% **(d) Handwheel type lifts shall have threaded bronze lift nut to match stem. Threads shall be machine cut, acme type and right hand unless otherwise specified. An**

% **arrow shall be cast on the handwheel to indicate the direction of rotation to open the**
% **gate. A maximum of 40 pounds shall be required to operate the gate after it is unseated.**

d. The Contractor shall meet the minimum safe trenching and excavation guidelines contained within the Reclamation publication entitled "Reclamation's Safety and Health Standards."

e. The diversion pipeline shall terminate in Two Mile Wash. ~~The Contractor shall supply and place thrust blocks as required at pipe bends~~. The Contractor shall supply and place a riprap apron at the pipe outlet in Two Mile Wash to dissipate the outfall and reduce the erosional affects in the wash.

% **f. Existing fences may be removed by the Contractor where necessary for**
% **performance of the work and shall be rebuilt in as good condition as found.**

% **g**. The Contractor shall supply and ~~place~~ **sow** native grass seeds in areas disturbed during construction activities.

2.3.3. Materials

a. Riprap requirements as specified in Paragraph 2.1.3. apply.

b. The Pipeline shall run from the diversion box (Moccasin Wash) to the outlet in Two Mile Wash. ~~The pipe shall have leak free joints~~. The proposed pipe shall meet the required size, general specifications, load bearing, and compaction requirements for the installation. The Contractor shall provide all connectors, pipe and covers for pipeline clean-outs.

2.3.4. Measurement and Payment

~~See Paragraph 2.1.4. for measurement and payment for furnishing and placing riprap~~.

% **Payment for furnishing and placing riprap will be made at the unit price per yard bid**
% **therefor in the schedule. This unit price includes geotextile, all other materials, labor,**
% **equipment, and incidentals required to complete the work as specified in this paragraph.**

Payment for excavation and furnishing and installing of the diversion pipeline will be made at the lump sum price bid therefor in the schedule. With the exception of furnishing and placing riprap, this lump sum price will include all materials, labor, equipment, and incidentals required to complete the work as specified in this paragraph.

SECTION 2.4--WASH RESTORATION

2.4.1. General

a. This Section covers the Two Mile Wash Restoration.

2.4.2. Wash Restoration

a. The Two Mile Wash restoration consists of: excavating and stockpiling liner material; excavating wash to dimensions shown in drawings X-300-2130 through X-300-2133A;
% abandonment of existing drain; and installation of a new drain. **No existing trees shall be**
% **removed during construction.**

% b. The Contractor should anticipate excavating approximately ~~6800~~ **7,200** cubic yards of
% material. The Contractor shall ~~carry~~ **haul** excavated material from the impoundment. Dozing or grading shall not be permitted within the impoundment. The Contractor shall place and level
% spoils in the upland area ~~(not to scale)~~ identified in drawing X-300-2130 **not to exceed 4 feet**
% **above the original dike centerline elevation. Excess spoils may be placed on roads and**
% **other upland areas adjacent to the impoundment approved by the Contracting Officer.**.

c. The Contractor shall remove and properly dispose of the operator of the existing low water
% drain. The existing pipe shall be plugged with **concrete** ~~bentonite or other acceptable material~~.

d. For installation of the drain, the Contractor shall excavate the trench; provide safe access
% and mechanical support for pipeline installation crews; backfill; and compact the trench **in**
% **accordance with Division No. 3, Earthwork, and drawing No. 11 (40-D-6453)**. Support includes, but is not limited to, delivering pipe to the trench, mechanically lowering pipe, and other support necessary to efficiently install the pipe

e. The Contractor shall supply and place a riprap apron at the drain outlet in Two Mile Wash.

2.4.3. Materials

a. Riprap requirements as specified in Paragraph 2.1.3. apply.

b. The Contractor shall provide and install 18-inch galvanized corrugated metal pipe; anti-seep collars; and trash rack as shown in drawing X-300-2137.

2.4.4. Measurement and Payment

~~See Paragraph 2.1.4. for measurement and payment for furnishing and placing riprap.~~

% **Payment for furnishing and placing riprap will be made at the unit price per yard bid**
% **therefor in the schedule. This unit price includes geotextile, all other materials, labor,**
% **equipment, and incidentals required to complete the work as specified in this paragraph.**

Payment for excavating and stockpiling liner material; excavating the existing wash; abandoning existing drain, and furnishing and installing of a new drain will be made at the lump sum price bid therefor in the schedule. With the exception of furnishing and placing riprap, this lump sum price will include all materials, labor, equipment, and incidentals required to complete the work as specified in this paragraph.

ASTM D1557 laboratory compaction test; and that for materials being compacted that have a moisture content between 2 and 4 percentage points dry of optimum moisture, the dry density of the soil fraction in the compacted material shall not be less than 98 percent of the laboratory maximum soil dry density, as determined by ASTM D1557 laboratory compaction test.

(b) Dry density using the relative density test as prescribed in subparagraph c.(2)(a) above.--The relative density of the compacted material shall not be less than 70 percent as determined by ASTM D4253 and ASTM D4254.

Except as otherwise provided for moisture content in subparagraph c.(2)(a) above., the materials shall be moistened, placed, and compacted in accordance with subparagraph b. above~~, when density is determined by ASTM's laboratory compaction test~~. When density is determined by the relative density test, the materials shall be moistened, placed, and compacted in accordance with subparagraph c.(1) above.

% **d. In-place densities. - The in-place density of the compacted material in trenches will**
% **be determined by one of the following: (1) Field Density Test Procedures, designation**
% **USBR 7205, Bureau of Reclamation "Earth Manual, Part 2, Third Edition"; (2) the sleeve**
% **method (ASTM D4564); or (3) other tests or methods designated by the Regional**
% **Engineer. The data for compacted material testing procedures are available from the**
% **Regional Engineer.**
%
% **Testing of materials for compaction as defined shall be at the Government's option.**
% **Acceptance of compacted materials at the jobsite will be made by the construction**
% **inspector. Any dispute of compaction will be settled by actual test results.**

% **e**. Costs.--The cost of compacting earth materials as described in this paragraph, including furnishing water and moistening the materials, shall be included in the respective lump sum prices bid in the schedule for items requiring earthwork.

SECTION 3.2--EXCAVATION

3.2.1. Excavation, General

a. General.--The Contractor shall perform all excavation required under these specifications for installation of a diversion pipeline, a precast concrete diversion box, an infiltration gallery and manifold piping system, and removal of silt and sand from a small water impoundment area (a stock pond) in accordance with this paragraph and paragraphs in SECTION 3.2--EXCAVATION, inclusive.

Material to be excavated will not be classified for payment. Bidders and the Contractor must assume all responsibility for deductions and conclusions as to the nature of the materials to be excavated, and the difficulties of making and maintaining the required excavations.

Excavation shall be made to the lines, grades, and dimensions prescribed in the various paragraphs of these specifications and as shown on the drawings.

The Government does not represent that the excavations performed under these specifications can be made to or maintained at the assumed excavation lines shown on the drawings or described in these specifications.

All necessary precautions shall be taken to preserve the material below and beyond the established lines of all excavation in the soundest possible condition. Any damage to the work due to the Contractor's operations shall be repaired at the expense of and by the Contractor. Material beyond the required or prescribed excavation lines which is loosened by the Contractor's operations shall be removed by and at the expense of the Contractor.

b. Additional excavation.--Where additional excavation is prescribed by the Contracting Officer to remove unsuitable foundation material, all earthwork and concrete required due to such additional excavation shall be in accordance with the applicable requirements of these specifications for excavation, backfill, and compacting backfill.

c. Overexcavation.--Except as ordered in writing by the Contracting Officer, excess excavation or overexcavation performed by the Contractor beyond the required or prescribed excavation lines for any purpose or reason, and backfilling, compacting of backfill, and concrete work occasioned thereby shall be at the expense of the Contractor.

If at any point in the excavation, material is excavated beyond the established excavation lines, the overexcavation shall be filled with select materials approved by the Contracting Officer and compacted in accordance with Paragraph 3.1.1. (Compacting Earth Materials); or if at any point in such excavation the foundation material is disturbed or loosened during the excavation process or otherwise, it shall be removed and replaced with select materials approved by the Contracting Officer and the select materials shall be compacted in accordance with Paragraph 3.1.1. (Compacting Earth Materials). The Contractor will not be required to fill any areas of overexcavation in the water impoundment portion of the work, however no additional payment will be made for overexcavation or the removal and disposal of excavated spoil.

d. Excavated materials.--Excavated materials which are unsuitable for or are in excess of embankment, backfill, or other earthwork requirements, as determined by the Contracting Officer, shall be wasted as provided in Paragraph 3.2.3. (Disposal of Excavated Materials).

e. Surfaces of excavation.--The surfaces of excavation upon or against which concrete is to be placed shall be finished to the dimensions shown on the drawings or prescribed by the Contracting Officer, and the surfaces as prepared shall be moistened with water and tamped or rolled with suitable tools or equipment to form compact foundations upon or against with to place the concrete.

Where concrete is to be placed directly upon or against rock surfaces, the excavation shall be sufficient at all points to provide for minimum dimensions of concrete shown on the drawings, and the required minimum dimensions of concrete shall be exceeded as little as possible.

3.2.2. Excavation for Diversion Pipeline Trench and Precast Concrete Diversion Box

a. General.--The Contractor shall excavate the diversion pipeline trench for installation of pipe of the size and type specified on the drawings. The trench shall be excavated to the lines

shown on the drawings or as directed by the Contracting Officer. At the location indicated on the drawings, the Contractor shall excavate for placement of precast concrete diversion box.

b. Foundation.--When the foundation material below the bottom of the pipeline and precast concrete diversion box is unsuitable, as determined by the Contracting Officer, the Contractor shall overexcavate and replace the overexcavation with compacted backfill. The backfill shall be placed and compacted as specified in Paragraph 3.1.1. (Compacting Earth Materials). If at any point in excavation, the foundation material is excavated beyond the lines required to receive the pipe or the precast concrete diversion box, the overexcavation shall be filled with suitable materials and compacted in accordance with Paragraph 3.1.1. (Compacting Earth Materials).

c. Payment.--No direct payment will be made to the Contractor for excavation and the cost of excavation for the diversion pipeline trench and precast concrete diversion box shall be included in the applicable prices bid in the schedule for which the excavation was performed.

3.2.3. Disposal of Excavated Materials

Suitable material from required excavations, or as much thereof as may be needed, as determined by the Contracting Officer, shall be used for backfill about the diversion pipeline, the infiltration gallery and pipe manifold, the concrete cutoff walls, and the precast concrete diversion box. Excess earth material removed in excavation and earth material not suitable for backfill shall be hauled to the location shown on the map and leveled to match the existing terrain.

The cost of all work described in this paragraph shall be included in the unit prices bid in the schedule for items which require excavation.

SECTION 3.3--BACKFILL

3.3.1. Backfill in Diversion Pipeline Trench, Precast Concrete Diversion Box, and Infiltration Gallery

% a. General.--The Contractor shall place **common excavation as** backfill material in diversion pipeline trench and about precast concrete diversion box which were excavated in accordance with Paragraph 3.2.2. ~~(Excavation for Diversion Pipeline Trench and Precast Concrete Diversion Box)~~.

Reference in this paragraph to backfill in diversion pipeline trenches includes aggregate base material and select material obtained from excavation for communication conduit trenches and aggregate base material and select material obtained from commercial sources.

Gradation limits for select material for backfill shall be evenly distributed within the range of 100 percent passing the 3/4-inch size screen and not more than 5 percent passing the No. 200 screen.

Gradation limits for aggregate base material for backfill shall meet the requirements specified in Paragraph 3.1.3. (Aggregate Base).

All backfill shall be carefully placed and spread in uniform layers so that all voids will be filled. Aggregate base material above the compacted select material may be placed as soon as compacting of the select fill material has been completed. Should compaction tests indicate insufficient density of the compacted select material about the diversion pipeline, the Contractor will be required to continue compacting the backfill materials until the proper densities are obtained.

No direct payment will be made to the Contractor for backfill in the diversion pipeline trench, and the cost of backfill in the diversion pipeline trench shall be included in the applicable prices bid in the schedule for which the backfill was performed.

3.3.2. Compacting Backfill in Diversion Pipeline Trench, Precast Concrete Diversion Box, and Infiltration Gallery

% a. General.--Backfill shall be compacted as shown on ~~the drawings~~ **drawing No. 11**
% **(40-D-6453)**, as specified in this paragraph, or as directed.

b. Location of compacted backfill.--

(1) Select backfill material and aggregate base material in the diversion pipeline trench and about the structures shall be compacted to the densities specified in Paragraph 3.1.1. (Compacting Earth Materials) and as shown on the drawings.

(2) Select material and aggregate base material about the precast concrete diversion box shall be compacted to the densities specified in Paragraph 3.1.1. (Compacting Earth Materials) and as shown on the drawings.

c. Compacting backfill.--Backfill in diversion pipeline trench shall be compacted in layers having about the same top elevation on both sides of the pipeline to prevent unequal loading and displacement of the conduit. All compacted backfill shall be free from voids or loose material. Select material shall be compacted by saturation and internal vibration. Temporary bulkheads shall be used to control the water where required to facilitate compaction of select material.

No direct payment will be made for compacting backfill in and the cost thereof shall be included in the applicable prices bid in the schedule for which the compaction of backfill is performed.

DIVISION 4--CONCRETE

SECTION 4.1--CONCRETE CONSTRUCTION, GENERAL

4.1.1. Concrete Construction, General

All cast-in-place concrete construction shall conform to this section. The concrete construction includes the placement of two concrete cutoff walls in and existing drainage wash. The concrete cutoff walls are part of the infiltration gallery and manifold pipeline system which collects and delivers water to the diversion pipeline. The diversion pipeline diverts a portion of the normal flow and excess runoff to the adjacent water impoundment area.

These items shall be constructed to the lines, grades, and dimensions shown on the drawings.

% The concrete compressive strength at 28 days shall be a minimum of ~~4,000~~ **3,000** psi .

4.1.2. Materials

a. General.--The Contractor shall furnish all materials for use in concrete, including cementitious materials, water, sand, coarse aggregate, and specified admixtures; and shall furnish all reinforcing bars and materials for curing concrete.

b. Cement.--Portland cement shall meet the requirements of ASTM C150 (1998) for type II portland cement and shall meet the low-alkali and false-set limitations specified therein.

c. Water.--Water shall be free from objectionable quantities of silt, organic matter, salts, and other impurities.

d. Sand and coarse aggregate.--Sand and coarse aggregate shall consist of clean, hard, dense, durable, uncoated rock fragments that are free from injurious amounts of dirt, organic matter, and other deleterious substances. Sand and coarse aggregate shall meet all requirements of ASTM C33. Coarse aggregate shall conform to ASTM C33 (1999) gradings for either size No. 467 (1-1/2-inch to No. 4 US standard sieve) or size No. 57 (1 inch to No. 4).

e. Air-entraining admixture.--The air-entraining admixture shall conform to ASTM C260 (1998): Provided, that air-entraining admixture used with type F or G chemical admixture shall be a neutralized vinsol resin formulation.

f. Chemical admixture.--The Contractor may use chemical admixtures which conform to ASTM C494 (1998), type A or D.

g. Reinforcing bars.--Reinforcing bars shall conform to ASTM A615 (1996) or A617 (1996), grade 60, including supplementary requirements.

h. Curing compound--Clear resin base curing compound, CRC-101, and shall conform to the requirements of Water and Power Resources Service "Specifications for Clear Resin Base Curing Compound CRC-101" dated January 1, 1981.

The concrete shall be cured and protected in accordance with Paragraph 4.1.5. (Concrete Placement, Curing, and Protection).

4.1.3. Composition

Unless otherwise directed, the Contractor shall design the concrete mix in accordance with these specifications. Mix designs shall provide for the minimum cementitious materials contents listed in table 4A (Minimum cementitious materials content).

Each mix design shall be submitted to the Contracting Officer for review prior to use of the concrete mix.

~~The Contracting Officer will test concrete for compliance with specifications and reserves the right to design and adjust the concrete mix proportions.~~

~~Air-entraining admixture shall be used in such an amount as will effect the entrainment of from 4 to 6 percent air, by volume, of the concrete as discharged at the placement.~~

~~Table 4A. - Minimum cementitious materials content~~

~~Nominal maximum size aggregate in concrete~~	~~Minimum cementitious materials content without water-reducing admixtures~~	~~Minimum cementitious materials content with water-reducing admixtures~~
~~1-1/2-inches~~	~~565 lb/yd^3~~	~~535 lb/yd^3~~
~~1 inch~~	~~620 lb/yd^3~~	~~585 lb/yd^3~~

~~The slump of the concrete shall not exceed 3 inches plus or minus 1 inch when placed, nor 5 inches when first mixed.~~

4.1.4. Batching, Mixing, and Transporting

Concrete shall be manufactured and delivered in accordance with ASTM C94 (1998), "Standard Specification for Ready-Mixed Concrete."

4.1.5. Concrete Placement, Curing, and Protection

No. 5 steel reinforcing bars shall be placed at one foot on centers, each face, each way. Before reinforcement is placed, the reinforcement shall be cleaned of heavy flaky rust, loose mill scale, dirt, grease, or other foreign substances. Reinforcement shall be accurately placed and secured in position so that it will not be displaced during the placing of concrete.

Forms shall be used to shape the concrete to the required lines. Exposed unformed surfaces shall be brought to uniform surfaces and given a reasonably smooth, wood-float or steel-trowel finish as directed.

The temperature of the concrete when it is being placed shall be not more than 90EF and not less than 50EF.

Concrete shall be vibrated until it has been consolidated to the maximum practicable density, is free from pockets of coarse aggregate, and closes snugly against all surfaces of forms and embedded materials.

The concrete shall be cured with water or curing compound. If water cured, the concrete shall be kept continuously moist for at least 14 days after being placed by sprinkling or spraying, or by other methods approved by the Contracting Officer. Curing compound, when used, shall be applied in accordance with the procedures contained in the Eighth Edition - 1981 Revised Reprint of the Bureau of Reclamation "Concrete Manual."

The Contractor shall protect all concrete against injury until final acceptance by the Government. The concrete shall be maintained at a temperature not lower than 50EF for at least 72 hours after it is placed and, if water cured, shall be protected against freezing temperatures for the duration of the curing period. Then after discontinuance of the water curing, this concrete shall be maintained at a temperature of not less than 50EF for 72 hours.

% 4.1.6. ~~Tolerances for Concrete Construction~~ [**Deleted in its entirety**]

% 4.1.7. ~~Finishes and Finishing~~ [**Deleted in its entirety**]

SECTION 4.2--PRECAST-CONCRETE STRUCTURES

4.2.1. Precast Concrete Diversion Box

a. General.--Precast concrete diversion box shall be constructed to the nominal dimensions shown on the drawings. ~~A possible source for the precast concrete diversion box could be Jensen Precast Concrete Products, 3853 Losee Road, North Las Vegas, Nevada 89030-3304, (702)-649-0045.~~

% **The first pipe joint out of the box shall be within 18 inches at each pipe outlet and**
% **manifold connection.**

b. Materials.--The precast concrete diversion box shall be fabricated to meet the requirements of ASTM C857 (1995): Standard Practice for Minimum Structural Design Loading for Underground Precast Concrete Utility Structures, and ASTM C858 (1983): Standard Specification for Underground Precast Concrete Utility Structures.

Concrete shall have a minimum compressive strength of 3000 psi at 28 days. Aggregate shall be standard gradation for precast concrete structures and shall not exceed 3/4-inch maximum gradation. Cement shall be Portland cement, type II for moderate sulfate conditions. Reinforcement steel shall be grade 60 steel, no. 4 bars at 12 inches on center, each face, % each way **continuous around corners**. Wall thickness for the precast structure shall be a minimum of 6 inches thick.

Precast structures shall not be moved from the precasting site sooner than 7 days after concrete in the structure is placed, unless otherwise approved by the Contracting Officer. If precast structures are moved before completion of the specified curing period, curing of the concrete shall not be interrupted.

c. Installation.--The Contractor shall install the precast concrete diversion box at the location shown on the drawings and to the required elevations.

The Contractor shall install the precast concrete diversion box in accordance with the manufacturer's instructions, in accordance with industry standards, and in accordance with the safety requirements of Reclamation's publication entitled "Reclamation's Safety and Health Standards."

d. Payment.---No direct payment will be made to the Contractor for furnishing and installing the precast concrete diversion box. These cost shall be included in the lump sum price bid in the schedule for slope stabilization and access, installation of diversion structures, installation of diversion pipeline.

DIVISION 5 -- SHEET PILING CUTOFF BARRIER

SECTION 5.1--SHEET PILING CUTOFF BARRIER

5.1.1. Sheet Piling Cutoff Barrier

a. General - The sheet piling cutoff barrier shall consist of 42 twenty-foot interlocking piles driven to the point of refusal or to the elevation shown on the drawings.

b. Materials - Sheet piling - The steel sheet piling shall be PS28 as manufactured by United States Steel or equal. The steel sheet piling shall conform to the requirements of ASTM designation: A328. Piling shall be furnished, set, and driven in full length unspliced sheets unless otherwise approved. All the piling shall be products of the same manufacturer. The manufacturer's logo and ASTM designation: A 328 shall be stamped on each sheet piling. All Contractor-furnished piling shall be new and unused. Piling shall have the properties equivalent to those listed in the following table:

Properties of sections

Type of section	Nominal web thickness (in.)	Section modulus per lin. ft. of wall (in.)	Weight per square ft. of wall (lb.)	Weight per lin. ft. of pile (lb.)
PS28	3/8	2.4	28.0	35.0

c. Submittals. - The Contractor shall submit the following:

(1) Material certification for sheet piling.

(2) Method of driving sheet piling.

d. Installation -

(1) Placing sheet piling. - Piling shall be placed in a plumb position with each pile interlocked with adjoining piles for its entire length so as to form a continuous diaphragm. Plumbness is defined as a deviation from the vertical of less than one-eight of an inch per foot of length along the interlock. Interlocks shall be properly engaged with the thumb of each pile gripped by the thumb and finger of the adjacent pile. All piling shall be placed as true to line as required to meet the limits for plumbness.

(2) Driving sheet piling. - Piles which are to be driven shall be driven by approved methods in such a manner as not to subject the piles to damage and to ensure proper interlocking throughout the length of the piles. Pile hammers shall be of approved sizes

% **and types necessary to install the piling as specified, and shall be maintained in proper**
% **alignment during driving operations by use of suitable leads or guides attached to the**
% **hammer. A protecting cap of approved design, consisting of steel casing slotted to fit**
% **the top of the sheet pile shall be employed when driving with an impact hammer to**
% **prevent damage to the tops of the piling. All sheets shall be driven to the elevation**
% **shown on the drawing or to the point of refusal. Refusal shall be defined as a minimum**
% **of 10 blows per inch. Adequate precautions shall be taken to ensure that piles are driven**
% **plumb. Piles driven out of interlock with adjacent piles, or otherwise damaged, shall be**
% **removed and replace with a pile that meets the specifications at the Contractor's**
% **expense.**
%
% **(3) Cutting - The Contractor shall, after driving the sheet piling to refusal, leave the**
% **sheet piling at the elevation shown on the drawings. Piles extending above this elevation**
% **shall be cut off to required grade. Piles cut off by burning shall be burned off using a**
% **straightedge to avoid abrupt nicks which could start fractures and splits.**
%
% **(4) Seepage holes - Seepage holes shall be provided on every sheet pile prior to**
% **driving. The seepage holes shall be 2 inches in diameter and spaced every two feet**
% **vertically from within 2 feet of the tip and to within 5 feet of the top.**
%
% **e. Measurement and payment - Payment for placing and driving the sheet pile will be**
% **made at the applicable lump sum price bid therefor in the schedule. This lump sum price**
% **shall include all cost of delivering, handling, driving, cutting off excess lengths, cutting**
% **or drilling seepage holes and all other material and work incidental to complete the work**
% **as specified in this paragraph.**

% DIVISION **6** -- DRAWINGS

% SECTION **6**.1--DRAWINGS

% **6**.1.1. Drawings, General

a. General.--The drawings which form a part of these specifications are the original piping installation drawings. The Government has attempted to verify the accuracy of these drawings, however it is the Contractor's responsibility to insure the accuracy of details that affect the job. In the event there are minor differences as determined by the Contracting Officer between details and dimensions shown on the drawings and those of existing features at the site, the details and dimensions of existing features at the site shall govern.

In accordance with the contract clause at FAR 52.236-21 Specifications and Drawings for Construction, the Contractor shall advise the Contracting Officer of any discrepancies including errors or omissions discovered on any of the drawings.

b. Additional copies of drawings.--The Contractor will be furnished such additional copies of these specifications and drawings as may be required for carrying out the work. Full-size contact prints of the original drawings from which the attached reproductions were made, other than standard drawings (40-D- series), will be furnished to the Contractor for construction purposes upon request. Additional prints of the standard drawings (40-D- series) will be furnished upon request. The number of prints of each drawing furnished to the Contractor will be limited to 2 sets of contact prints and 1 set of reproducibles.

c. Existing installation drawings.--The drawings included herein are existing installation drawings. These drawings are included to show the existing installations.

% **6**.1.2. List of Drawings

The following drawings are made a part of these specifications:

TWO MILE WASH RESTORATION
KAIBAB, ARIZONA

LIST OF DRAWINGS

GENERAL

%	1.	X-300-2123	Location Map **(Rev. 9-13-99)**
%	~~2.~~	~~X-300-2124~~	~~Site Plan~~ [**DELETED**]
	3.	X-300-2125	Plan and Details
%	4.	X-300-2126	Plan and Profile **(Rev. 9-14-99)**
%	5.	X-300-2130	Plan **(Rev. 9-14-99)**
%	6.	X-300-2131	Cross Sections (1 of 4) **(Rev. 9-14-99)**
%	7.	X-300-2132	Cross Sections (2 of 4) **(Rev. 9-14-99)**
%	8.	X-300-2133	Cross Sections (3 of 4) **(Rev. 9-14-99)**
%	9.	X-300-2133A	Cross Sections (4 of 4) **(Rev. 9-14-99)**
%	10.	X-300-2137	Details **(Rev. 9-14-99)**
%	**11.**	**40-D-6453**	**Pressure Pipe - Typical Trenches - 54-inch Diameter and Smaller Pipe**
%			

% **APPENDIX A**
%
% **EPA has received and reviewed the request for Clean Water Act §401 water quality certification for the Two Mile Wash Restoration Project. Based on the application, the project lies within the Kaibab-Paiute Indian Reservation. The proposed project must comply with Nationwide Permit 26 (Headwaters and Isolated Water Discharges). EPA grants 401 Certification provided the following conditions are adhered to during all project phases:**
%
% **1. No disposal of construction material, demolition wastes, wastewater, contaminated well water, or any other pollutant is authorized by this certification.**
%
% **2. Construction materials placed within the 100-year floodplain must be free of substances that can cause or contribute to the pollution of waters of the United States. The applicant shall take necessary steps to ensure that contaminated materials are not used for fill within the 100-year floodplain.**
%
% **3. Pollution from the operation, repair, maintenance, and storage of equipment shall be removed from and properly disposed of outside the 100-year floodplain. Spills shall be cleaned up and properly disposed of outside the 100-year floodplain. Substances such as fuel, lubricants, solvents, and other hazardous materials should not be stored within this area if they cannot be removed within 12 hours notice of impending flood.**
%
% **4. Water used in dust suppression should not contain contaminants that could violate surface water or aquifer standards.**
%
% **5. The applicant shall take necessary steps to minimize channel and bank erosion within waters of the United States during and after construction.**
%
% **6. Runoff from disturbed soils, improvements, and other alterations of the natural environment must not exceed water quality standards.**
%
% **7. No material shall be placed in a way that adversely affects riparian vegetation.**
%
% **8. Work in streams supporting anadromous fish shall occur only when these species are not present.**
%
% **9. A copy of this certification shall be provided to all contractors and subcontractors.**
%

% **10. If there are any substantive changes in the proposed project that may affect**
% **water quality, the applicant shall notify EPA. Failure to do so will result in**
% **revocation of this certification.**
%
% **11. When water is present, the Contractor shall implement all necessary measures**
% **to prevent the discharge of any substance into the water created by, arising**
% **from, or consequential to construction or demolition activity.**
%
% **12. When the construction project requires the diversion of a flowing stream,**
% **earthen materials shall not be used in direct contact with the flowing waters.**
% **The diversion shall follow the ADEQ BMP "Installation of Dikes in Small**
% **Streams." When this diversion is removed from the stream, the earthen**
% **material shall be removed first.**

project, for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, Executive Order 11246, as amended, and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

(d) The Contractor shall provide written notification to the Deputy Assistance Secretary for Federal Contract Compliance, U.S. Department of Labor, within 10 working days following award of any construction subcontract in excess of $10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the--

(1) Name, address, and telephone number of the subcontractor;

(i) Employer identification number of the subcontractor;

(2) Estimated dollar amount of the subcontract;

(3) Estimated starting and completion dates of the subcontract; and

(4) Geographical area in which the subcontract is to be performed.

(e) As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is Hoover Dam, Mohave County, Arizona.

L.7 52.233-2 SERVICE OF PROTEST (AUG 1996)--DEPARTMENT OF INTERIOR (JUL 1996) (DEVIATION)

(a) Protests as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from: Contracting Officer, Bureau of Reclamation, P.O. Box 61470, Boulder City NV 89006-1470.

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(c) A copy of the protest served on the Contracting Officer shall be simultaneously furnished by the protester to the Department of Interior Assistant Solicitor for Procurement and Patents, 1849 C Street, NW, Room 6511, Washington, D.C. 20240.

L.8 WBR 1452.233-80 AGENCY PROCUREMENT PROTESTS--BUREAU OF RECLAMATION (SEP 1997)

(a) Executive Order 12979, Agency Procurement Protests, establishes policy on agency procurement protests. This policy is implemented at section 33.103 of the Federal Acquisition Regulation. For solicitations issued by the Bureau of Reclamation, an interested party may request independent review of its protest by the Bureau Procurement Chief.

(b) This independent review is available as an alternative to consideration by the contracting officer or as an appeal of the contracting officer's decision on a protest. An interested party may:

(1) Protest to the contracting officer;

(2) Protest directly to the Bureau Procurement Chief, without first protesting to the contracting officer; or

(3) Appeal a contracting officer's decision to the Bureau Procurement Chief.

(c) An appeal of the contracting officer's decision must be received by the Bureau Procurement Chief (Bureau of Reclamation, Denver Federal Center, Bldg. 67, P.O. Box 25007 (D-7800), Denver, CO 80225-25007) no later than 3 days after receipt of that decision by the interested party. The Bureau Procurement Chief shall render a decision no later than 5 days after receipt of an appeal.

(d) If there is an appellate review of the contracting officer's decision by the Bureau Procurement Chief, it will not extend the General Accounting Officer's timeliness requirements. Therefore, any subsequent protest to the GAO must be filed within 10 days of knowledge of initial adverse agency action (4 CFR 21.2(a)(3)).

L.9 52.236-27 SITE VISIT (CONSTRUCTION) (FEB 1995)

(a) The clauses at 52.236-2, Differing Site Conditions, and 52.236-3, Site Investigations and Conditions Affecting the Work, will be included in any contract awarded as a result of this solicitation. Accordingly, offerors or quoters are urged and expected to inspect the site where the work will be performed.

% (b) A site visit is scheduled for 10:00 a.m. MST on **September 17, 1999**. Participants will meet in the conference room at the tribal office (see page 2 of the Foreword for directions). Prospective bidders desiring to visit the site of the work should communicate with:

Name:	Mr. Harvey Edwards (LC-6210)
Address:	P.O. Box 61470, Boulder City NV 89006-0400
Telephone:	(702) 293-8151

L.10 52.252-5 AUTHORIZED DEVIATIONS IN PROVISIONS (APR 1984)

(a) The use in this solicitation of any Federal Acquisition Regulation (48 CFR Chapter 1) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the provision.